

PHILIP POWELL CALVERT: STUDENT, TEACHER, AND ODONATOLOGIST

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Seventy-five years ago Philip Powell Calvert was president of The American Entomological Society when it celebrated its 50th anniversary. He lived to participate in the 100th anniversary of the society in 1959. During Dr. Calvert's 74-year association with the society, he served on its council for nearly 60 years. In addition to being president from 1900-15, he was vice president (1894-98), corresponding secretary (1895), associate editor (1893-1910) and editor (1911-43) of *Entomological News*, and member and chairman of the finance committee for many years. It is therefore fitting that the society on the occasion of its 125th anniversary should commemorate Dr. Philip P. Calvert.

With the exception of a postdoctoral year (1895-96) at the Universities of Berlin and Jena and a sabbatical year (1909-10) in Costa Rica, Dr. Calvert was a resident of the Philadelphia area. He was born on January 29, 1871, near the University of Pennsylvania, the oldest of three sons of Mary Sophia Powell Calvert and Graham Calvert, a Philadelphia lawyer. After graduating from Central High School in 1888, he went to the University of Pennsylvania where he obtained his certificate in biology in 1892 and his Ph.D. in 1895. Calvert's student career at the University of Pennsylvania blends with his professional career there. Successively his appointments were assistant instructor (1892-97), instructor (1897-1907), assistant professor (1907-12) and professor (1912-39). He married Amelia Catherine Smith in 1901. They had no children. Throughout his career and until his death on August 23, 1961, Dr. Philip Calvert was a recognized authority on the Odonata.

The foregoing list of milestones and accomplishments serves to impress upon us his distinguished career, but it conveys little of the personality of the man, the impact he had on other people, and the influences that led him to a career in entomology. After his death, Amelia Calvert bequeathed Dr. Calvert's personal and professional letters to The Academy of Natural Sciences of Philadelphia (see list at end). This accumulation of over 70 years, numbering over 12,000 items, contains among other things his high school notebooks, early field notes, and his lengthy correspondence with entomologists. Due to Dr. Calvert's long association with *Entomological News* and his stature as an odonatologist, this collection in the academy

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archives traces the history of *Entomological News* and the field of odonatology for over half a century. It also documents Calvert the person and provides glimpses of his early development as an entomologist. Rather than repeat Dr. Calvert's accomplishments and contributions to entomology that have already been published (see list at end), this tribute will focus on his early interests in Odonata and the role of The American Entomological Society in his development.

As is often the case with professional biologists, Calvert's career is rooted in a childhood interest in natural history. At the age of 12, in 1883, he had assembled a botanical dictionary of native and exotic plants which included field notes and a few drawings. The dictionary is extensive with common and Latin names interspersed. In its later versions it appears as if Calvert may have intended to publish it. Clearly he was an accomplished botanist at an early age. Letters from his mother years later indicate she was knowledgeable about plants and thus may have inspired his early botanical interests.

When Louis Agassiz died in 1873, America lost its most popular and influential scientist (Lurie, 1960). In the spirit of the Swiss-born naturalist who had advocated, "study nature, not books," Harland H. Ballard founded the Agassiz Association in 1875 (Ballard, 1888). This organization grew rapidly and boasted hundreds of chapters and over 20,000 members by the early 1890's. Although the organization attracted many adults, its original intent was to promote natural history interests among young people. The first general convention of the Agassiz Association was held in Philadelphia in September 1884 in conjunction with the meeting of the American Association for the Advancement of Science. It seems likely that this event directly or indirectly affected Calvert for in January 1885 he was curator of an informal Agassiz Association group. In the fall of 1886 Frank G. Jones, George L. Bahl, J. Lee Patton, and Philip P. Calvert, all students at Central High School, founded Chapter 242 of the Agassiz Association. Calvert was chapter secretary until the group discontinued activities in 1890.

As curator for the Agassiz Chapter, Calvert's annual report for 1885 was exuberant, noting the collections had been more than doubled. The report listed all the additions which ranged from minerals and skulls to birds and insects. Many of the additions were from Calvert himself. At this time there is little indication of a specialization in insects. A diary from a family trip to visit relatives in South Carolina in the summer of 1885 reveals a typical boyhood fascination with snakes and details an amusing episode where he offered a reward to obtain a much sought specimen of a water moccasin. The specimen, though small, was obtained eventually and added to the Agassiz collection. On later inspection the specimen turned out to be a less interesting nonpoisonous species.

It is evident that Calvert's parents not only tolerated but encouraged his interests in natural history. Their Christmas present to the Agassiz Association in 1885 was a microscope with slides. Earlier they had contributed a butterfly case. As treasurer of the chapter's scientific fund from 1885-88, Calvert meticulously detailed the cash flow of an annual budget of less than \$11. His father's semiregular monthly contribution of 50¢ and occasional smaller contributions from his mother accounted for most of the income. An interest in coins is suggested by the "numismatical" withdrawals from the fund. Such were the financial roots of the future long-term member and chairman of The American Entomological Society's finance committee.

By 1886 Calvert was an accomplished illustrator. His attention to details in color and form are remarkably displayed in a series of beautiful illustrations of local butterflies. One of these is accompanied by an equally detailed description of the life cycle of the monarch butterfly as he had observed it. These observations and illustrations of butterflies at the age of 15 seem to be the first indications of what would become a lifelong interest in insects.

Late in 1886 Calvert began to visit the library and insect collections of The Academy of Natural Sciences. There he read journal articles on Lepidoptera and studied specimens. At that time George B. Cresson was conservator of the entomological section of the academy and a member of The American Entomological Society. As noted by Calvert (1920) in his obituary of Cresson, Cresson told him he would do well to study some group of insects other than Lepidoptera and Coleoptera since there were many people already interested in those groups. Since he had a few dragonflies, he took Cresson's advice and began to study the Odonata seriously.

Although he was not to publish his first entomological paper until 1890, Calvert's increasing interest in the Odonata is documented in the records of the Agassiz Association. As secretary of Chapter 242, Calvert submitted annual reports of the chapter's activities to the national Agassiz Association. These were published in the April 1887, 1888, and 1889 issues of *Swiss Cross*, a monthly magazine published by the Agassiz Association. He reported in 1887, "The secretary has also paid some attention to Lepidoptera, but is now prepared to devote his time and energies to dragonflies."

In 1887 most of the Odonata fauna of the northeastern United States had been described but very little was known about geographic distribution, seasonal distribution, habitat preference, or behavior of the species and certainly there were no good guides. Nevertheless, the young Calvert became knowledgeable about the local species and within a short time became the local expert. As his interest grew, so did his horizons. The June

1887 and 1888 issues of *Swiss Cross* contain requests from Calvert to exchange Odonata. It is worth noting that this high school student listed his return address as The Academy of Natural Sciences.

Respondents to the 1888 requests were sent forms on which to record their observations and detailed instructions on how their observations should be made. Data obtained from respondents in Maine, New York, and Illinois provided the basis for Calvert's first manuscript. It was submitted to *Swiss Cross* in the fall of 1888. The manuscript was accepted by H.H. Ballard, set in type, and then rejected by the editor because it was "too technical." A brief summary was published in the January 1889 issue. The college freshman accepted the setback and went on to publish many articles on the Odonata in other journals. (*Swiss Cross* ceased publication later in 1889.)

The founders of the Philadelphia Chapter of the Agassiz Association went on to college leaving no younger members with the enthusiasm to carry on the activities. Calvert's last entry in the minutes record an abrupt end to the waning chapter: "Francis Gilmore Jones, President of Chapter 242, died March 19, 1891." Although the rise and fall of the chapter was tied to the careers of the founders, it also seems to be related to the publication of *Swiss Cross*. This magazine served to stimulate the formation of the chapter and link it with numerous local chapters around the country. When publication ceased, communication ceased.

When the Agassiz Association chapter disbanded, Calvert already had strong ties to other local organizations. The minutes of the entomological section of The Academy of Natural Sciences show that Calvert attended its meeting on January 27, 1887, and was nominated for associate membership. He was elected at the March 24th meeting and regularly attended subsequent meetings. Then as now there was a close association of the academy and The American Entomological Society. The society met semiannually and dealt mostly with business rather than science. The society minutes record Calvert as a visitor at their June 13, 1887 meeting. It is apparent that George B. Cresson, an entomologist who never published, not only promoted Calvert's interest in the Odonata but also brought him into the company of adult entomologists of the academy and The American Entomological Society.

Calvert attended and participated regularly in the meetings of the society and the academy for six years before he formally became a full member of both. In 1889 a report by him on the Odonata fauna of Philadelphia was noted in the *Transactions of The American Entomological Society and the Proceedings of the Entomological Section of the Academy of Natural Sciences*. The inaugural issue of *Entomological News* issued shortly before Calvert's 19th birthday contains a review by him and lists

him as a member of the publication's advisory board. By 1893 he was associate editor of *Entomological News*. Apparently he was not considered for full membership in the academy or the society until he graduated from college despite his many contributions.

The premier American odonatologist in the 1880's was Dr. Hermann Hagen. He had described more than one hundred of the North American species of Odonata. In 1861 he had published his *Synopsis of the Neuroptera of North America*. This had been translated from Latin to English by P.R. Uhler. When Uhler moved from the Museum of Comparative Zoology at Harvard in 1867, Louis Agassiz, the director of the museum, selected Dr. Hagen from Konigsberg in East Prussia as the successor. As might be expected, the first odonatologist with whom Calvert corresponded was Hagen. The correspondence which began in 1888 culminated in July of 1890 with a several day visit by the 19 year old Calvert with the ailing 74 year old Hagen at the Museum of Comparative Zoology. In September 1890 Hagen was stricken with paralysis and he died in November 1893.

Clearly Hagen accepted and greatly encouraged Calvert's interests in Odonata. It was almost as if the baton of American odontology was passed from Hagen to Calvert at their meeting in Cambridge. The news of Hagen's death travelled quickly, for the December 1893 issue of *Entomological News* carries an obituary of Hagen written by Calvert. It is notable that Hagen's obituary was the very first of over 200 entomological obituaries that Calvert was to write for *Entomological News*. Calvert (1893b) wrote of Hagen, "In February, 1890, he (Hagen) sent me his unpublished notes on *Leucorrhinia*, giving me permission to publish them, and when I wrote him for a title he wrote 'Synopsis of *Leucorrhinia*' with my name as author, although the work was all his own." This exchange was precipitated by a January 1890 publication by Calvert describing three species of *Leucorrhinia*. Embarrassingly the one he named in honor of Hagen was identified as a synonym by Hagen in his February letter to Calvert. Calvert responded to Hagen, "I regret it very much if I have created a synonym in the case of *L. hageni*, the more especially because I had named the species after you." In future years Calvert was noted for his careful work. Mrs. Leonora K. Gloyd recalls that Calvert routinely shared his observations and new species descriptions with E.B. Williamson and F. Ris so as to compare opinions and to avoid publishing prematurely.

Throughout his college years Calvert published notes and commentary relevant to the Odonata and in 1893 he published his first major work, *Catalogue of the Odonata (dragonflies) of the Vicinity of Philadelphia, with an Introduction to the Study of this Group*. This served as a model for regional insect study and was the first major attempt at a guide to the order. Calvert went on to publish over 300 notes and articles on the Odonata,

mostly in *Entomological News*.

In addition to his career as an entomologist, Calvert was also a first-class educator. Dr. Arnold Clark, former professor of biology at the University of Delaware and a graduate student in Dr. Calvert's entomology course in 1937-38, described Dr. Calvert's six-hour oral final examination as the best learning experience he ever had. Dr. Clark distinctly remembers Calvert's retirement party in 1939 where Calvert described his teaching philosophy, "I never taught anyone anything. I only tried to stimulate them to learn for themselves and to edit the literature for them." In a way this is a statement of the way Calvert himself had been taught by members of The Academy of Natural Sciences and The American Entomological Society.

Calvert's contributions to the academy and the society are enormous. Yet it was the members of these organizations who stimulated and guided Calvert's interest in insects. Calvert was a precocious teenager whose abilities could have led him into many successful careers. He was fortunate to have the experts available when he needed them to answer his questions or to point the way. There is a lesson to be learned in the long association of Philip P. Calvert with The American Entomological Society and The Academy of Natural Sciences of Philadelphia., In the future we should realize our potential for exciting and sustaining the interests of budding entomologists.

COLLECTIONS RELATING TO PHILIP POWELL CALVERT IN THE ARCHIVES OF THE ACADEMY OF NATURAL SCIENCES, PHILADELPHIA

- Coll. No. 48 Minutes of Chapter 242 of the Agassiz Association, Philip P. Calvert, Secretary 1887-1891.
- Coll. No. 198 Certificates of Achievement and Honors awarded Philip P. Calvert.
- Coll. No. 290 Biographical papers and records.
- Coll. No. 492 Correspondence of Philip P. Calvert, Editor of *Entomological News*, 1910-1943.
- Coll. No. 633 Itinerary, field notes, notebooks, photographs and diary from sabbatical leave in Costa Rica, 1909-1910.
- Coll. No. 634 Material relating to professional matters kept at Dr. Calvert's home office until his death.
- Coll. No. 635 A bibliography (1895-1958) on seasonal distribution of organic life in the tropics.
- Coll. No. 695 Calvert's diary of his postdoctoral year in Europe, 1895-1896.
- Coll. No. 902 Bibliographic Catalog of the Odonata of the World 1891-1943.
- Coll. No. 926 Dictionary of Plants compiled in 1883 by Philip P. Calvert.
- Coll. No. 929 Family letters, 1895-1910.
- Coll. No. 933 Early observations and field notes, 1885-1888.
- Coll. No. 939 Correspondence, scientific and general, 1887-1960.
- Coll. No. 965 Final drafts of papers for publication 1899-1912.
- Coll. No. 966 Annotations on the Odonata, 1901-1908.



Philip Powell Calvert at the age of seventeen when he graduated from Central High School in Philadelphia (February 1888). Philip P. Calvert in retirement (no date). Both photographs reproduced with the permission of the Library. The Academy of Natural Sciences of Philadelphia.

BIBLIOGRAPHY AND BIOGRAPHY OF PHILIP POWELL CALVERT

(Compiled by Mrs. Leonora K. Gloyd)

- Asahina, S. 1961. Dr. Philip Powell Calvert (1871-1961) in memoriam. Tombo, 4(3-4): 1-2.
- Gloyd, L.K. 1973. Additions to Calvert bibliography. Selysia, 6(1): 8-9.
- Mallis, A. 1971. American Entomologists, Rutgers University Press, New Brunswick, NJ. Philip P. Calvert p178-180 (photo).
- Moore, J. 1962. Year Book of the American Philosophical Society. Philip Powell Calvert (1871-1961) p110-115.
- Needham, J.G. 1951. To Doctor Philip Powell Calvert, Editor Emeritus of Entomological News, octogenarian odonatologist, generous colleague, counselor and friend. Ent. News 62(1): 1 (photo).
- Rehn, J.A.G. 1962. Philip Powell Calvert (1871-1961). Ent. News 73(5): 113-121 (photo).
- Schmieder, R.G. and M.E. Phillips. 1951. Bibliography of Philip P. Calvert, 1889-1950. Ent. News 62(1): 3-40.
- Schmieder, R.G. 1962. Additions to the bibliography of Philip P. Calvert, subsequent to 1950. Ent. News 73(5): 121.
- St. Quentin, D. 1963. Dr. Philip Powell Calvert in memoriam. Zeitschr. der Arbeitsgemeinschaft Orsterr. Entomologen. 15(1-2): 62-63.

ACKNOWLEDGMENTS

I thank Mrs. Leonora K. Gloyd and Dr. Arnold M. Clark for sharing their personal recollections of Dr. Calvert presented in this article. I thank Mrs. Carol M. Spawn for her help in locating material on Dr. Calvert in the archives of The Academy of Natural Sciences of Philadelphia.

LITERATURE CITED

- Ballard, H.H. 1888. Three Kingdoms, The Winter's Publishing Co., NY 167 pp.
- Calvert, P.P. 1887a. [Annual Report of Chapter 242 of the Agassiz Association]. Swiss Cross 1: 161.
- Calvert, P.P. 1887b. [advertisement for Odonata]. Swiss Cross 1: 248.
- Calvert, P.P. 1888a. [Annual Report of Chapter 242 of the Agassiz Association]. Swiss Cross 3: 122.
- Calvert, P.P. 1888b. [advertisement for Odonata]. Swiss Cross 3: 191.
- Calvert, P.P. 1889a. [summary Calvert's recent work on Odonata]. Swiss Cross 5: 26-27.
- Calvert, P.P. 1889b. [Annual Report of Chapter 242 of the Agassiz Association]. Swiss Cross 5: 123.
- Calvert, P.P. 1890a. Notes on some North American Odonata with descriptions of three new species. Trans. Amer. Ent. Soc. 17: 33-40.
- Calvert, P.P. 1890b. [Introduction and notes to] A synopsis of the odonate genus *Leucorrhinia* Britt. By H.A. Hagen. Trans. Amer. Ent. Soc. 17: 229-236.
- Calvert, P.P. 1893. Catalogue of the Odonata (dragonflies) of the vicinity of Philadelphia, with an introduction to the study of this group of insects. Trans. Amer. Ent. Soc. 20: 152-272.
- Calvert, P.P. 1893b. Dr. H.A. Hagen [obituary, with portrait] Ent. News 4: 313-317.
- Calvert, P.P. 1920. George Bringham Cresson [obituary]. Ent. News 31: 29-30.
- Lurie, E. 1960. Louis Agassiz: A Life in Science, The University of Chicago Press, Chicago. 449 pp.